



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,586	06/01/2001	Kevin Alexander Stoodley	CA920000035US1	2632

25259 7590 10/20/2004

IBM CORPORATION
3039 CORNWALLIS RD.
DEPT. T81 / B503, PO BOX 12195
REASEARCH TRIANGLE PARK, NC 27709

EXAMINER

TANG, KUO LIANG J

ART UNIT	PAPER NUMBER
----------	--------------

2122

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,586

Applicant(s)

STOODLEY, KEVIN ALEXANDER

Examiner

Kuo-Liang J Tang

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/7/2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the amendment filed on 9/7/2004.

Claims 1-30 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-30 have been considered but they are not persuasive.

Claims 1-5, 11-18 and 21-30 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Holzle in view of Bacon.

Claims 6-10 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Holzle in view of Bacon, further in view of Harriman.

Claims 19-20 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Holzle in view of Bacon, further in view of Lee, further in view of Shimura.

In the remarks, the applicant argues that:

1. The Applicant argues that the reasons for combining Holzle and Bacon are tenuous (see RE page 6, lines 21-24 to page 7, lines 1-10). Bacon has nothing to do with polymorphic inline caches (PICs), or the problems associated with them. Holzle utilizes PICs as a way to reduce the overhead polymorphic message sends by extending inline caches. Multi-threading is not apparently discussed in Holzle. Bacon has nothing to do with PICs and implementing a polymorphic call site. (see RE page 6, lines 21-24 to page 7, lines 1-10).

Art Unit: 2122

2. The Applicant argues that the reasons for combining Holzle and Harriman are even more tenuous. Haniman has nothing to do with object oriented technology. These slots do not teach, suggest or disclose anything with respect to a slot in a PIC. Harriman has nothing to do with object oriented technology. (see RE page 7, lines 11-21)).

Examiner's response:

1. The examiner disagrees with Applicant's assertion that the reasons for combining Holzle and Bacon are tenuous. In fact, Holzle does not teach multi-thread and lock / unlock. However, Bacon teaches multi-thread and lock / unlock. Therefore combine Bacon with Hozle to cure the deficiencies of Holzle for the purpose to be used as the basis for a very fast implementation of the synchronization facilities of the Java (object oriented language.

The examiner interprets Holzle's "case" to mean "slot" and Bacon's "thread" to mean "slot". Only Bacon's aspect of multithread and lock / unlock are being used to combined with Holzle which already provided PIC.

2. The examiner disagrees with Applicant's assertion that the reasons for combining Holzle and Haniman are tenuous. In fact, as noted above of Examiner's response 1. The examiner interprets Holzle's "case" to mean "slot" and Bacon's "thread" to mean "slot". Haniman teaches "Tracking of entries in the free token queue 115 may be accomplished by maintaining a list of available slots" (E.g. see Office Action,, dated

Art Unit: 2122

4/5/2004, page 13, lines 6-9). Therefore, combine Haniman with Holzle and Bacon to track free token queue with array of bits indicating the status of each slot. Only Haniman's aspect of indicating slot status is used to combined with Holzle which already provided PIC.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2122

Correspondence Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang J Tang whose telephone number is 703-305-4866. The examiner can normally be reached on 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on 703-305-4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

After October 25, 2004, examiner can be reached at new telephone number (571) 272-3705, and the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kuo-Liang J. Tang

Software Engineer Patent Examiner

Anthony Nguyen Ba

ANTONY NGUYEN-BA
PRIMARY EXAMINER